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XXXX 2001

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 93

[Docket No. XXXX; Amendment No. 93-]

**Noise Limitations for Aircraft Operations in the Vicinity of Grand Canyon National
Park**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking.

SUMMARY: This supplemental proposal amends the notice of proposed rulemaking (NPRM) published on December 31, 1996 (61 FR 69334; Notice 96-15) which proposed to establish noise efficiency limitations for certain aircraft operations in the vicinity of Grand Canyon National Park (GCNP). The NPRM is being re-examined because Congress passed legislation that directed the FAA to designate reasonably achievable requirements for quiet technology in commercial air tour aircraft at GCNP. This SNPRM proposes standards for quiet technology that are reasonably achievable. The standards for quiet technology proposed in this SNPRM will be used to assist the National Park Service (NPS) achieve its statutory mandate to provide for the substantial restoration of natural quiet and experience in the GCNP.

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The SNPRM also disposes of the comments that were received in response to the December 1996 NPRM.

DATES: Comments must be received on or before *<fill in date>*.

ADDRESSES: Address your comments to the Docket Management System, U.S.

Department of Transportation, Room PL401, 400 Seventh Street, SW., Washington, DC 20590-0001. You must identify Docket Number FAA-2001-XXXX at the beginning of your comments.

You may also submit comments through the Internet to <http://dms.dot.gov>. You may review the entire public docket for this SNPRM at that same site.

You may also review the public docket in person in the Docket Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office is on the plaza level.

FOR FURTHER INFORMATION CONTACT: Mr. Thomas L. Connor, AEE-100, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, DC 20591; Telephone: (202) 267-8933.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this

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document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. The docket is available for public inspection both before and after the closing date for receiving comments. Before taking any final action on this proposal, we will consider all comments made on or before the closing date for comments.

If you want the FAA to acknowledge receipt of your comments on this proposal, include with your comments a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it to you.

Availability of the SNPRM

You can get an electronic copy using the Internet by taking the following steps:

- (1) Go to the search function of the Department of Transportation's electronic Docket Management System (DMS) web page (<http://dms.dot.gov/search>).
- (2) On the search page type in the last four digits of the Docket number shown at the beginning of this notice. Click on "search."
- (3) On the next page, which contains the Docket summary information for the Docket you selected, click on the document number for the item you wish to view.

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You can also get an electronic copy using the Internet through the Office of Rulemaking's web page at <http://www.faa.gov/avr/armhome.htm> or the Federal Register's web page at http://www.access.gpo.gov/su_docs/aces/aces140.html.

You can also get a copy by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW., Washington, DC 20591, or by calling (202) 267-9680. Make sure to identify the docket number, notice number or amendment number of this rulemaking.

History

Table 1 provides a timeline of events related to the effort to designate quiet technology requirements for air tour operations in Grand Canyon National Park (GCNP). These events are described in this and succeeding sections.

Beginning in the summer of 1986, the FAA initiated regulatory action to address increasing air traffic over GCNP. On March 26, 1987, the FAA issued Special Federal Aviation Regulation (SFAR) No. 50 (subsequently amended on June 15, 1987; 52 FR 22734) establishing flight regulations in the vicinity of the GCNP. The purpose of the SFAR was to reduce the risk of midair collision, reduce the risk of terrain contact accidents below the rim level, and reduce the impact of aircraft noise on the park environment.

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Table 1. Timeline of Events related to the Designation of Quiet Technology for Air Tour Operations in GCNP (Part 1 of 2)

Year	Month	<u>Event</u>
1987	March/June	The FAA publishes SFAR No. 50 to establish special flight regulations in vicinity of GCNP (52 FR 22734)
	August	Congress enacts National Parks Overflights Act (Pub. L. 100-91)
	December	The DOI transmits "Grand Canyon Aircraft Management Recommendation" to the FAA
1988	May/June	The FAA publishes SFAR No. 50-2 to revise flight procedures in GCNP airspace (53 FR 20264)
1994	March	The FAA and the NPS jointly issue ANPRM seeking public comment on quiet technology and incentives (59 FR 12740)
	September	The DOI submits to Congress "Report on Effects of Aircraft Overflights on the National Park Systems"
1995	June	The FAA extends SFAR No. 50-2 until June 15, 1997 (60 FR 31608)
	July	The DOI report to Congress is published.
1996	April	The President publishes a memorandum directing the substantial restoration of natural quiet in GCNP
	July	The FAA publishes NPRM (Notice 96-11) to amend 14 CFR part 93 to codify SFAR No. 50-2 (61 FR 40120)
	December	The FAA publishes final rule to codify SFAR 50-2 into a new subpart U of 14 CFR part 93 (61 FR 69302)
	December	The FAA publishes NPRM (Notice 96-15) on noise limitations for air tour operations in GCNP (61 FR 69334)
	December	The FAA publishes notice of availability of proposed commercial air tour routes (61 FR 69356)
1997	February	The FAA delays the effective date of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (62 FR 8862)
	May	The FAA publishes NPRM (Notice 97-6) to establish Bright Angel incentive corridor and the National Canyon corridor for air tour routes (62 FR 26902)
	October	The FAA publishes clarification of its reevaluation of the economic and environmental impacts of the final rule published on 12/31/96 (62 FR 58898)
	December	The FAA further delays the effective date of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (62 FR 66248)
1998	July	The FAA withdraws the National Canyon corridor proposal (63 FR 38232)
	July	The FAA also withdraws Notice 97-6, which proposed two quiet technology incentive corridors (63 FR 38233)
	December	The FAA delays the effective date of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (63 FR 67544)
1999	January	The NPS publishes a notice of agency policy, "Evaluation Methodology for Air Tour Operations Over Grand Canyon National Park" (64 FR 3969)
	February	The FAA delays the effective of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (64 FR 5152)
	July	The FAA published an NPRM (Notice 99-11) to modify the dimensions of the GCNP SFRA (64 FR 37296)
	July	The FAA also published NPRM (Notice 99-12) to limit the number of commercial air tours conducted in GCNP (64 FR 37304)
	July	The NPS evaluation methodology becomes effective (64 FR 38006)

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Table 1. Timeline of Events related to the Designation of Quiet Technology for Air Tour Operations in GCNP (Part 2 of 2)

Year	Month	Activity
2000	February	The FAA delays the effective of 14 CFR sections 93.301, 93.305, and 93.307 and reinstates portions of SFAR No 50-2 (65 FR 5395)
	April	The FAA publishes the commercial air tour limitations final rule (65 FR 17708)
	April	The FAA publishes the airspace modification final rule (65 FR 17736)
	April	Congress enacts the National Parks Air Tour Management Act of 2000 (Pub. L. 106-181, Title VIII)
	May	The commercial air tour limitations final rule becomes effective (14 CFR §§ 93.315, 93.317, 93.319, 93.321, 93.323, and 93.325)
	November	The FAA delays the effective date of the airspace modification final rule (65 FR 69846)
2001	January	The FAA delays the effective date of the airspace modification final rule (66 FR 1002)
	March	The FAA and the NPS jointly issue a notice establishing the NPOAG (66 FR 14429)
	March	The FAA delays the effective date of the airspace modification final rule (66 FR 16582)
	April	The airspace modifications final rule becomes effective (14 CFR §§ 93.301, 93.305, 93.307, and 93.309)
	June	The FAA and the NPS announce the NPOAG membership (66 FR 32974)

ANPRM	Advanced Notice of Proposed Rulemaking
CFR	Code of Federal Regulations
FR	Federal Register
NPOAG	National Parks Overflights Advisory Group
NPRM	Notice of Proposed Rulemaking
SFAR	Special Federal Aviation Regulation

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In August 1987, Congress enacted Public Law (Pub. L.) 100-91, commonly known as the National Parks Overflights Act (or the Overflights Act). The Overflights Act stated, in part, that noise associated with aircraft overflights at GCNP was causing “a significant adverse effect on the natural quiet and experience of the park and current aircraft operations at the Grand Canyon National Park have raised serious concerns regarding public safety, including concerns regarding the safety of park users.”

Section 3 of the Overflights Act required the Department of the Interior (DOI) to submit to the FAA recommendations to protect resources in the GCNP from adverse impacts associated with aircraft overflights. The law mandated that the recommendations: (1) provide for substantial restoration of the natural quiet and experience of the park and protection of public health and safety from adverse effects associated with aircraft overflight, (2) with limited exceptions, prohibit the flight of aircraft below the rim of the canyon, and (3) designate flight-free zones except for purposes of administration and emergency operations.

In December 1987, the DOI transmitted its “Grand Canyon Aircraft Management Recommendation” to the FAA. The Overflights Act required the FAA to prepare and issue a final plan for the management of air traffic above the GCNP, implementing the recommendations of the DOI without change unless the FAA determined that executing the recommendations would adversely affect aviation safety.

On May 27, 1988, the FAA issued SFAR No. 50-2 revising the procedures for operation of aircraft in the airspace above the GCNP (53 FR 20264). SFAR No. 50-2 established a Special Flight Rules Area (SFRA) from the surface to 14,499 feet above mean

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sea level (MSL) in the area of the GCNP. The SFAR prohibited flight below a certain altitude in each of five sectors of this area, with certain exceptions. The SFAR established four flight-free zones from the surface to 14,499 feet MSL covering large areas of the park. The SFAR provided for special routes for commercial sightseeing operators. These operators are required to conduct sightseeing operations under either part 121 or part 135 of Title 14 of the Code of Federal Regulations (CFR) as specified in their operations specifications. Finally, SFAR 50-2 contained certain terrain avoidance and communications requirements for flights in the area.

In March 1994, the two agencies jointly issued an advance notice of proposed rulemaking (ANPRM) seeking public comment on policy recommendations addressing the effects of aircraft overflights on national parks, including GCNP (59 FR 12740). The recommendations presented for comment included: (1) voluntary measures, (2) altitude restrictions, (3) flight-free periods, (4) flight-free zones, (5) allocation of noise equivalencies, and (6) incentives to encourage use of quiet aircraft technology. In response to the ANPRM, the FAA received 644 comments that specifically addressed GCNP.

A second major provision of section 3 of the Overflights Act required the DOI to submit a report to Congress discussing whether SFAR No. 50 “has succeeded in substantially restoring the natural quiet in the park; and such other matters, including possible revisions in the plan, as may be of interest.” The report was to include comments by the FAA “regarding the effect of the plan's implementation on aircraft safety.” The Overflights Act mandated a number of studies related to the effect of overflights on parks.

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On September 12, 1994, the DOI submitted its final report and recommendations to Congress. This report “Report on Effects of Aircraft Overflights on the National Park System,” was published in July 1995. The report recommended numerous revisions to SFAR No. 50-2 in order to substantially restore natural quiet in GCNP. Recommendation No. 10, “Improve SFAR 50-2 to Effect and Maintain the Substantial Restoration of Natural Quiet at Grand Canyon National Park,” is of particular interest to this rulemaking. This recommendation incorporated the following general concepts: (1) simplification of the commercial sightseeing route structure, (2) expansion of flight-free zones, (3) accommodation of the forecast growth in the air tour industry, (4) phased-in use of quieter aircraft technology, (5) temporal restrictions (“flight-free” time periods), (6) use of the full range of methods and tools for problem solving, and (7) institution of changes in approaches to park management, including the establishment of an acoustic monitoring program by the NPS in coordination with the FAA. On June 15, 1995, the FAA published a final rule that extended the provisions of SFAR No. 50-2 to June 15, 1997 (60 FR 31608).¹ This action allowed the FAA sufficient time to review the NPS recommendations and to initiate and complete appropriate rulemaking action.

President's Memorandum

The President, on April 22, 1996, issued a Memorandum for the Heads of Executive Departments and Agencies to address the significant impacts on visitor experience in national parks. Specifically, the President directed the Secretary of Transportation to issue proposed

¹ The provisions of SFAR No. 50-2 have been extended numerous times (62 FR 8862; 62 FR 66248;

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regulations for the Grand Canyon National Park that would appropriately limit sightseeing aircraft to reduce the noise immediately and to further restore natural quiet, as defined by the Secretary of the Interior, while maintaining aviation safety in accordance with the Overflights Act.

On July 31, 1996 the FAA published an NPRM (61 FR 40120; Notice 96-11) to reduce the impact of aircraft noise on GCNP and to assist the NPS in achieving its statutory mandate imposed by the Overflights Act to provide for the substantial restoration of natural quiet and experience in GCNP. A final rule was issued on December 31, 1996 (61 FR 69302) to amend 14 CFR part 93 with a new subpart U (Sections 93.301 to 93.317). The amendment adopted the following: (1) modification of the dimensions of the GCNP SFRA, (2) establishment of new flight-free zones and flight corridors, as well as modification of existing flight-free zones and flight corridors, (3) establishment of flight-free periods (curfews) in the Dragon and Zuni Point Corridors, and (4) establishment of reporting requirements for commercial sightseeing companies operating in the SFRA. In addition, the FAA sought comments on a number of questions and alternatives regarding curfews and caps, as well as on the issue of quiet aircraft technology. This final rule also placed a temporary limit on the number of aircraft that could be used for commercial sightseeing operations in the GCNP SFRA. These provisions were to become effective on May 1, 1997. Only the reporting requirements, and

63 FR 67544; 64 FR 5152; 65 FR 5395) with the last extension in January 2001 (66 FR 1002).

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aircraft cap were actually implemented. Implementation of the remaining provisions had been delayed.

Additionally, on December 31, 1996, the FAA published an NPRM on Noise Limitations for Aircraft Operations in the Vicinity of Grand Canyon National Park (61 FR 69334; Notice 96-15), and a Notice of Availability of Proposed Commercial Air Tour Routes in the Federal Register (61 FR 69356). These two documents were part of an overall strategy to reduce further the impact of aircraft noise on the park environment and to assist the NPS in achieving its statutory mandate imposed by the Overflights Act.

1996 Proposal for Quiet Technology Designation

In the 1996 NPRM, Noise Limitations for Aircraft Operations in the Vicinity of Grand Canyon National Park, FAA proposed to establish noise limitations for certain aircraft operating in the vicinity of GCNP. The proposed aircraft noise limitations rule generally would have required air tour aircraft to be categorized according to each aircraft's noise efficiency. The 1996 proposal had three parts: (1) incentive flight corridor through the National Canyon, (2) categorize aircraft by noise efficiency, and (3) removal of the aircraft cap for the most noise efficient aircraft.

The first part was to provide incentives for the use of quieter aircraft within the GCNP. The proposed rule would have implemented incentives for conversion to the most noise efficient category of air tour aircraft. The NPRM also provided an incentive route for the use of noise efficient aircraft within the GCNP by establishing the National Canyon Corridor, a route within the newly expanded Toroweap/Shinumo Flight-free Zone.

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The second part was to establish additional aircraft noise limitations to further reduce the impact of aircraft noise on the GCNP environment. The NPRM proposed to divide air tour aircraft into three categories according to their level of noise efficiency, as measured by the relationship between the certificated noise level of the aircraft and the number of passenger seats on the typical configuration of that aircraft type. The noise efficiency concept not only had much in common with the FAA's approach to aircraft noise standards but also supported the theme that the use of quieter, larger aircraft would provide a two-fold benefit. The replacement of a tour aircraft with a larger, more noise efficient aircraft would both reduce the noise of each operation and reduce the number of air tour operations while still accommodating the same number of passengers. This theme is in accord with the FAA's general policy of using cumulative aircraft noise as an appropriate measure of potential impacts accounting for the number of flights and intensity of their noise. The FAA began to explore a noise efficiency approach as an incentive for operators to utilize aircraft equipped with the best available noise abatement technology in the GCNP. Additionally, the NPRM would have phased-out the use of the least noise efficient aircraft. The NPRM defined the three categories of noise efficiency as, Category A, the least noise efficient; Category B, more noise efficient than Category A; and, Category C, the most noise efficient.

The third element was to minimize or eliminate the impact of the aircraft cap on operators using the quietest aircraft in the GCNP by lifting the immediate temporary cap placed on the number of aircraft permitted to be used for commercial sightseeing operations in the GCNP for Category C air tour aircraft, the most noise efficient aircraft. The intended goal of

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the 1996 NPRM requirements was to reduce the impact of air tour aircraft noise in the GCNP and to assist the NPS in achieving the statutory mandate to provide for the substantial restoration of natural quiet and experience in the GCNP.

The FAA's findings and recommendations were presented in full detail in the publication of the NPRM. Following the publication of the NPRM, as well as a number of other related rulemakings at the end of December 1996, the FAA and NPS jointly agreed that the best approach to substantially restore natural quiet in GCNP was to devote their resources to the development of those final rules that addressed critical near-term needs. Thus, priority was given to the promulgation of final rules on changes to the airspace over GCNP and establishment of operations limitation for air tour flights. The agencies again focused on the quiet technology rulemaking as soon as the airspace and operations limitation final rules were published in April 2000.

Related Federal Rulemaking and Policies since 1996

On February 26, 1997, the FAA published a final rule (62 FR 8862) that amended the effective date of modifications to the GCNP SFRA that were codified in an earlier final rule published on December 31, 1996. This action delayed the effective date for 14 CFR Sections 93.301, 93.305, and 93.307 of the final rule and reinstated portions of and amended the expiration date of SFAR No. 50-2.²

² The effective date for 14 CFR Sections 93.301, 93.305, and 93.307 was delayed by subsequent amendments (62 FR 66248; 63 FR 67544; 64 FR 5152; 65 FR 5395; 65 FR 69846; 66 FR 1002) until finally becoming effective on April 19, 2001.

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On May 15, 1997, the FAA published an NPRM (62 FR 26902; Notice 97-6), which proposed to amend two of the Flight-Free Zones within the GCNP by establishing two corridors through the Flight-free Zones. The first corridor through the Bright Angel Flight-free Zone would have been an incentive corridor to be used only by the most noise efficient aircraft. The second corridor in the Toroweap/Shinumo Flight-free Zone through the National Canyon area would create a marketable air tour route in the central section of the Park while addressing some concerns of the Native Americans.

On October 31, 1997, the FAA published a notice of clarification (62 FR 58898) to set forth its reevaluation of the economic and environmental impacts associated with the Special Flight Rules in the Vicinity of Grand Canyon National Park (GCNP) Final Rule, published on December 31, 1996. After implementation of certain provisions of the final rule, the FAA discovered that it had underestimated the number of commercial air tour aircraft operating in GCNP in 1995. The FAA reevaluated the economic and environmental analyses completed for the final rule in light of this new information. The FAA determined that the changes were not of such magnitude as to affect the Agency's position on the implementation of the final rule.

On July 15, 1998, the FAA published a supplemental amendment (63 FR 38232) to the NPRM Notice 96-15 published on December 31, 1996, which proposed to establish noise limitations for certain aircraft operating in the vicinity of GCNP. Specifically, the FAA removed two sections from the 1996 NPRM that proposed to establish a corridor in the Toroweap/Shinumo Flight-free Zone through the National Canyon area as an incentive route for quiet technology aircraft. The FAA, in consultation with the NPS, removed these two sections

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from the NPRM because the agencies determined not to proceed with an air tour route in the vicinity of National Canyon and instead were considering alternatives to this route. Comments submitted by the air tour operators, the environmentalists, and the Native Americans led the two agencies to conclude that the National Canyon air tour route was not a viable option. The supplemental amendment did not affect any other provisions contained in the 1996 NPRM. At the same time, the FAA withdrew NPRM Notice 97-6, which had proposed 2 quiet technology incentive corridors in the Park (63 FR 38233).

On January 26, 1999, the NPS published a public notice of agency policy, "Evaluation Methodology for Air Tour Operations Over Grand Canyon National Park" (64 FR 3969). The intent of the notice was to solicit comments on refinements to NPS' noise evaluation (i.e., impact assessment) methodology for air tour operations over GCNP. Specifically, the refinements contemplated a two-zone system for assessing impacts related to substantial restoration of natural quiet at GCNP. In Zone One, which would encompass about one-third of the Park's area, the threshold of noticeability previously used in noise modeling for environmental analyses related to GCNP air tours would continue to be used (i.e., the average A-weighted natural ambient level plus 3 decibels). In Zone Two, which would encompass about two-thirds of the Park's area, the threshold for the onset of impact would be audibility (i.e., the level at which aircraft can begin to be heard by people with normal hearing, determined to be 8 decibels below the average A-weighted natural ambient level at GCNP). Because the noise model used to assess air tour overflight noise in the park is based upon A-weighted data, the adjustments of +3 and -8 dB are the respective conversion factors related to the thresholds

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of noticeability and audibility in terms of the noise frequency on the one-third octave band. This noise assessment methodology became effective on July 14, 1999 (64 FR 38006).

On July 9, 1999, the FAA published an NPRM to modify the dimensions of the GCNP SFRA (64 FR 37296; Notice 99-11). At the same time, the FAA proposed a rulemaking (64 FR 37304; Notice 99-12) to limit the number of commercial air tours that may be conducted in the GCNP SFRA and to revise the reporting requirements for commercial air tours in the SFRA. A final rule was published on April 4, 2000 (65 FR 17708). The final rule enables the FAA and the NPS to limit and further assess the impact of aircraft noise on the GCNP. In addition, this rule adopts non-substantive changes to 14 CFR part 93, subpart U to improve the organization and clarity of the rule. The rule temporarily limits commercial air tours in the SFRA at the level reported to the FAA by the operators for the year May 1, 1997–April 30, 1998 (the base year), pending implementation of the comprehensive noise management plan. During the implementation of the commercial air tour limitation, the FAA and the NPS will collect further information regarding commercial SFRA operations and aircraft noise in the GCNP. The NPS and the FAA will use the information collected during this time to determine whether the “substantial restoration of natural quiet” had been achieved at the GCNP. In the event that the agencies determine that the statutory goal is not met through the various noise mitigation techniques adopted, the FAA and NPS will need to take further steps to achieve the substantial restoration of natural quiet. This could mean that the commercial air tour limitation will become permanent and/or that commercial air tours will be further limited. The commercial air tour limitation replaces the current aircraft cap set forth in §93.316(b).

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On April 4, 2000, the FAA also published a final rule (65 FR 17736) modifying the airspace in the SFRA. This rule went into effect on April 19, 2001.³

The National Parks Air Tour Management Act of 2000

The National Parks Air Tour Management Act of 2000 (the Air Tour Act) was enacted on April 5, 2000, as Title VIII of Public Law 106–181 (Pub. L. 106–181). The Air Tour Act applies to “commercial air tour operations” occurring over a unit of the national park system or tribal lands within or abutting a national park. Section 804 of the Air Tour Act states that within 12 months after the date of its enactment (April 5, 2000), the Administrator shall designate reasonably achievable requirements for fixed-wing and helicopter aircraft necessary for such aircraft to be considered as employing quiet aircraft technology for purposes of this section. If the Administrator determines that it is not possible to make such designation before April 5, 2001, the Administrator shall transmit to Congress a report on the reasons for not meeting such time period and the expected date of such designation. Additionally, Congress mandated that once such a designation had been made, those commercial air tour operators who employ quiet aircraft technology shall not be subject to the operational flight allocations at Grand Canyon National Park, "...provided that the cumulative impact of such operations does not increase noise at Grand Canyon." Finally, the Air Tour Act also directs that "...the Administrator shall establish, by rule, routes or corridors for commercial air tour operations...by fixed-wing or helicopter aircraft that employ quiet aircraft technology..." at Grand Canyon National Park,

³ The effective date for the airspace modification rule was delayed by subsequent amendments (65 FR 69846;

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"...provided that such routes or corridors can be located in areas that will not negatively impact the substantial restoration of natural quiet, tribal lands, or safety."

National Parks Overflights Advisory Group (NPOAG)

On March 12, 2001, the NPS and FAA in accordance with the Air Tour Act, invited persons interested in participating on the NPOAG to send a letter to the FAA by April 2, 2001 (66 FR 14429). The NPOAG membership was announced on June 19, 2001 (66 FR 32974).

In accordance with the Air Tour Act, the advisory group will provide advice, information, and recommendations to the Administrator and the Director—

- (1) On the implementation of this title [the Air Tour Act] and the amendments made by this title;
- (2) On commonly accepted quiet aircraft technology for use in commercial air tour operations over a national park or tribal lands, which will receive preferential treatment in a given air tour management plan;
- (3) On other measures that might be taken to accommodate the interests of visitors to national parks; and
- (4) At the request of the Administrator and the Director, safety, environmental, and other issues related to commercial air tour operations over a national park or tribal lands.

66 FR 1002; 66 FR 16582) until finally becoming effective on April 19, 2001.

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The Air Tour Act also requires FAA to consult with the advisory group and the NPS on the establishment of routes or corridors for commercial air tour operations by fixed-wing and helicopter aircraft that employ quiet aircraft technology for--

(1) tours of the Grand Canyon originating in Clark County, Nevada; and

(2) 'local loop' tours originating at the Grand Canyon National Park Airport, in Tusayan, Arizona.

GCNP Aircraft Noise Model Validation Study

The noise modeling used in all of the GCNP environmental documents to date, remains the best science currently available and produces results consistent with available data. However, as noise modeling is a constantly evolving technology, both agencies are committed to making appropriate adjustments to the approaches and methodologies as new knowledge or science becomes available. In 1999, the NPS and the FAA jointly funded a noise model validation study to determine the degree of accuracy and precision of existing computer models. This study compares the existing candidate models for assessing air tour noise exposure with noise measurements taken in GCNP.⁴ The ongoing noise model validation effort is part of the FAA and NPS commitment to work cooperatively to meet the mandated goal of a substantial

⁴ The candidate models being validated are:

1. The FAA's Integrated Noise Model, which has been modified to address air tour aircraft noise exposure in GCNP and is referred to as the GCNP Integrated Noise Model (GCINM).
2. The NPS's National Park Service Overflight Decision Support System (NODSS) designed and programmed specifically for park applications to consider audibility, significant changes in terrain elevation, and shielding due to terrain.
3. NOISEMAP Simulation Model (NMSIM) developed by the US Air Force and the National Aeronautics and Space Administration (NASA) to simulate aircraft single event noise levels.

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restoration of natural quiet in GCNP. The final results of this project, when they become available, could have an effect on both the determination of substantial restoration of natural quiet already achieved and the evaluation of alternative means of implementing quiet technology.

As part of the Noise Model Validation Study efforts, the agencies jointly formed the Technical Review Committee (TRC) to review and comment on various technical issues that may arise related to the measurement, quantification and analysis of soundscapes. The TRC is composed of 8 acoustics and statistical experts from academia, private companies, and government agencies.

Environmental Review

In accordance with FAA Order 1050.1D, Appendix 4, Paragraph 4.j, the FAA has determined that this proposed rulemaking is categorically excluded from environmental review. The proposed rulemaking establishes quiet technology designations for air tour aircraft operating in GCNP. It does not impose a phase-out or any alteration of any air tour operator's fleet of aircraft. In addition, the proposed rulemaking does not lift the operations limitation, alter any flight corridors through the Park, or make any change to the SFRA. Finally, the FAA notes that this proposed rulemaking has no impact on substantial restoration of natural quiet at GCNP and environmental and economic impacts will depend upon other future incentives yet to be defined. Accordingly, this proposed rulemaking will not individually or cumulatively have a significant effect on the human environment.

Consultation with Affected Indian Tribes

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Six Native American communities represented by eight separate tribal governments have ancestral ties to the Grand Canyon. Three of these communities have reservations that border the GCNP, the Navajo Nation to the east, and the Havasupai and Hualapai Tribes to the south. The Department of Transportation (DOT), FAA, DOI, NPS, Advisory Council on Historic Preservation (ACHP), Bureau of Indian Affairs (BIA), and Arizona State Historic Preservation Officer (SHPO) have consulted with these tribes, on a government-to-government basis, according to the provisions of the NEPA, the National Historic Preservation Act (NHPA), and the Council on Environmental Quality (CEQ) regulations and other applicable laws and Executive Orders.

In accordance with Section 106 of the NHPA, the FAA issued a Determination of No Adverse Effect to the Traditional Cultural Properties (TCPs) for all of the tribes and/or nations, except the Hualapai Tribe, for the April 2000 rulemaking actions associated with the SFRA in the vicinity of the GCNP. As to the Hualapai Tribe, the FAA along with the NPS, the Advisory Council on Historic Preservation, the Hualapai Tribal Historic Preservation Officer (THPO) and the Hualapai Department of Cultural Resources signed a Programmatic Agreement on January 24, 2000 related to Section 106 compliance and their TCPs.

Due to new safety concerns raised by the Air Tour Operators related to the route and airspace modifications on the East End of the SFRA, only those modifications from west of the Dragon Corridor were implemented on April 19, 2001. In accordance with Section 106 of the NHPA, if modifications are proposed for the East End commercial air tour routes and airspace

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to address the new safety concerns, the Navajo Nation and the other interested Native American tribes, specifically the Hopi Tribe and Pueblo of Zuni will be notified.

Public Input

The FAA has reexamined the December 1996 proposal in light of the direction provided in Section 804 of the Air Tour Act. Under the mandate, the Administrator shall designate reasonably achievable requirements for fixed-wing and helicopter aircraft necessary for such aircraft to be considered as employing quiet aircraft technology for purposes of this section. The proposed quiet technology designations require air tour aircraft to be categorized according to each aircraft's noise efficiency. The eventual goal is to assist the National Park Service (NPS) in achieving its statutory mandate imposed by Public Law 100-91 to provide for the substantial restoration of natural quiet and experience in the GCNP. This proposed rulemaking is related to and consistent with other rulemaking actions being implemented by the FAA concerning the GCNP.

In addition, the SNPRM does not propose to implement the provision of the National Parks Air Tour Management Act of 2000 that would permit a lifting of the cap on commercial sightseeing air tour operations in the Park. The implementation of any quiet technology incentive flight corridors and the removal of operations limitation for quiet technology aircraft will be the subject of future rulemaking as the FAA, in consultation with the NPS, works with an advisory group composed of representatives of general aviation, commercial air tour operations, environmental concerns, and Indian Tribes.

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The SNPRM also disposes of the comments that were received in response to the December 1996 NPRM (61 FR 69334). The 1996 NPRM proposed to establish noise limitations for certain aircraft operated in the vicinity of Grand Canyon National Park. The 1996 proposal had three parts: (1) incentive flight corridor through the National Canyon, (2) categorize aircraft by noise efficiency, and (3) removal of the aircraft cap for the most noise efficient aircraft.

The first part of the 1996 proposal provided an incentive for the use of noise efficient aircraft within the GCNP by establishing a National Canyon Corridor within the newly expanded Toroweap/Shinumo Flight-free Zone. This SNPRM does not propose any incentive corridors.

The second part of the 1996 proposal divided aircraft into three categories according to their level of noise efficiency and proposed to phase-out aircraft in the two least noise efficient categories (Categories A and B). Category A is the least noise efficient, Category B is more noise efficient than Category A, and Category C is the most noise efficient. This SNPRM proposes to replace the three categories and to designate as quiet technology those aircraft that comply with what was formerly described as Category C, the most noise efficient category.

The third part of the 1996 proposal lifted the cap placed on the number of aircraft permitted to be used for commercial sightseeing operations in GCNP for the most noise efficient aircraft (Category C). This SNPRM does not include this part of the 1996 proposal as explained in a later section of this notice.

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Interested persons were invited to participate in the rulemaking action by submitting written data, views, or comments. The comment period for the NPRM closed March 31, 1997. The comment period for the draft Environmental Assessment also closed on March 31, 1997. In response to the NPRM the FAA received 107 comments. All comments received were considered before issuing this SNPRM. An analysis of the comments is summarized below.

The comments presented in the subsections below were to the December 1996 NPRM. As one of the purposes of this SNPRM is to dispose of the 1996 comments, the FAA responses take into account related Federal actions since 1996. Commenters include air tour operators and their representatives, environmental groups, sightseeing organizations, Native American tribes, pilots and pilot associations, and individuals. Most commenters do not support some or all aspects of the proposal. Generally, air tour operators who do not currently operate quiet aircraft are against a phase-out of noisier aircraft as proposed in 1996; one Native American tribe was against the 1996 proposal to reintroduce a flight route through the National Canyon; while environmental organizations argue that by itself the 1996 proposal would not adequately restore the natural quiet to GCNP.

1. General Comments on Proposal

The FAA received a number of general comments on the NPRM, including comments related to statutory issues, procedural complaints, and environmental concerns. Eagle Canyon Airlines (Eagle) (54), Vision Air (Vision) (61), and King Airlines, Inc. (King) (56) state that the NPRM failed to state the basis for the FAA's statutory authority for the proposed rulemaking.

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They state that the FAA cited the Overflights Act as part of the statutory authority for the NPRM but that the final rule (December 31, 1996) did not cite the Overflights Act as statutory authority.

These three commenters state that the Overflights Act gave the FAA the legal authority to issue SFAR 50, but not to take further action beyond that. These commenters also state that the FAA's cited authority from the FAA Act does not give the FAA authority to protect "environmental values" or to promulgate a noise management plan.

The Helicopter Association International (HAI) (63) states that the proposals are arbitrary and capricious because unbiased data demonstrate that natural quiet has been restored at GCNP and air tour aircraft currently operating at GCNP are fully certificated by the FAA and in compliance with all applicable FAA safety and operating regulations.

The General Aviation Manufacturers Association (GAMA) (64) states that the NPRM does not contain the necessary scientific data or substantiation to prove that the proposal will accomplish its goal. GAMA believes that basing a rulemaking on a broad and indefinite range of terms and objectives, such as "interference" or "annoyance" of visitors and "substantial restoration of natural quiet," is subjective and arbitrary. GAMA fears that introducing noise limitations and forced attrition for aircraft presently operating in the vicinity of GCNP could be the beginning of a process that could progressively tear down the entire U.S. aviation system. GAMA believes that, if FAA's strategy were applied to the vast holding of federal lands, federal parks, state lands and state parks, it would severely impact the use of general aviation aircraft and some commercial airliners as well.

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Twin Otter (45) believes that quiet technology is the solution to the problem of achieving substantial restoration of natural quiet to the GCNP. However, the alternative, caps, curfews and ever more limitations on how air tours can be conducted, is totally unacceptable.

Lake Mead Air (26, 53) suggests that protecting the park experience from noise will be more effectively accomplished by routing traffic away from the park visitors than by use of quiet technology and altitude.

Clark County Department of Aviation and the Las Vegas Convention and Visitors Authority (Clark County) (62) believe that the piecemeal nature of the FAA's Grand Canyon rulemaking makes it impossible for the public to meaningfully comment on the proposals. Clark County suggests that the FAA propose its entire Grand Canyon strategy -- flight-free zones, tour routes, quiet aircraft requirements, and other measures -- as one package, so that the public can assess the best overall program.

The United States Air Tour Association (USATA) (60) states that all of the various regulatory actions being implemented by the FAA should be combined into a single rulemaking effort to ensure that all the relevant issues are addressed as an integrated whole.

Bell Helicopter Textron (91) and the Professional Helicopter Pilots Association (85) believe that there are substantial issues in controversy in this proposal, which should necessitate the use of negotiated rulemaking by means of the Aviation Rulemaking Advisory Committee (ARAC) process.

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The Sierra Club, Angeles and Grand Canyon Chapters (38, 75, 76), opposes the permissive growth of the air tour industry in the GCNP. The level of flight operations should be reduced to the levels, which existed in the Park in 1975.

The Sierra Club, Grand Canyon Chapter, believes that the Noise Limitations NPRM can be part of an acceptable plan, but would not by itself substantially restore natural quiet at GCNP. The proposal would not bring GCNP into compliance with the Overflights Act, nor would it bring the park into compliance with the management objectives of the GCNP General Management Plan. Furthermore, the proposal would not implement the actions directed by President Clinton in his Earth Day memorandum (April 1996). The Overflights Act directs the FAA to implement the recommendations of the NPS, revised only for safety. The FAA has ignored the law in this regard and continues to promote the air tour industry.

FAA response

The Overflights Act charged the FAA, in concert with the DOI, to enact rulemaking and take what action is necessary to substantially restore the natural quiet and experience of our national parks, and to protect the public health and safety from adverse effects associated with overflights. This mandate imbued the FAA with the necessary authority to carry out any measure recommended by the NPS that did not have safety issues and was necessary to effect the substantial restoration of the natural quiet and experience and to protect the public safety. The practical effect of this second requirement is the implementation of operational rules for aircraft that facilitate the safe overflight of the GCNP. In accordance with the Air Tour Act, the FAA has established

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the NPOAG to provide advice and counsel on the implementation of quiet aircraft technology at GCNP.

The agencies acknowledge that the SNPRM on noise, alone, is inadequate to accomplish its stated goal and mandate under the Overflights Act. It is for this reason that the FAA has adopted rules to enhance flight free zones, modify the route structure, and limit the number of air tours in GCNP.

2. Natural Quiet

A number of commenters address the question of whether the proposals would contribute to the substantial restoration of natural quiet in the GCNP. Grand Canyon Trust (Trust) (72) makes the following general observations:

(1) Whatever regulatory scheme is ultimately implemented, that scheme must comply with the Overflights Act and that NPS, not the FAA, must determine whether and when natural quiet is substantially restored.

(2) The FAA must implement rules that immediately restore natural quiet to the canyon.

(3) The proposed rule must be substantially revised and strengthened because it will permit an immediate degradation of natural quiet.

(4) Any revisions will have to include an immediate conversion to the quietest aircraft and a cap on the number of tour operators at well below the 1987 level.

The Sierra Club, Grand Canyon Chapter (76), states that the detectability level (D'L) for defining natural quiet should be less than 5, rather than 17, which is used by NPS. The higher criterion shows an unrealistic prevalence of natural quiet. Furthermore, the definition of

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"substantial restoration of natural quiet" is flawed. A more appropriate definition would require natural quiet all of the time in most of the park, and would require natural quiet most of the day in the rest of the park. Congress mandated action to restore natural quiet and to reduce negative impact from aircraft. The FAA and NPS policy of ignoring the effects of all aircraft except tour aircraft is inappropriate.

HAI (63) states that banning some aircraft is not necessary to achieve "restoration of natural quiet" in GCNP, even when natural quiet is measured in the terms used by the NPS. HAI points out that the FAA's Draft Environmental Assessment (DEA), which accompanied the December 1996 NPRM, states that natural quiet at GCNP is within 1% of the NPS's goals without the imposition of any aircraft ban. HAI also believes that, in estimating aircraft operational and performance data, the FAA used inaccurate data and incorrect assumptions, thereby substantially overestimating the sound generated by the aircraft used in tour operations at GCNP. HAI further states that the FAA substantially underestimated the degree to which natural quiet has been restored under SFAR 50-2, and that, if the impact of aircraft overflight sound is measured in terms of visitor experience at GCNP, the data demonstrate that natural quiet has been restored to the Park. HAI believes that the FAA's aircraft sound prediction model substantially underestimates ground attenuation effects and that FAA estimates of ambient sound at GCNP are unrealistically low.

Bell Helicopter Textron (91) states that the ambient noise projections assigned to different areas of the Park are unrealistically low. This has the resultant effect of greatly overstating how long the aircraft's sound is detectable. Equally as damaging as this unrealistic

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projection is the assumption that there is no lateral attenuation of aircraft sound in the Grand Canyon. Such false assumptions understate the substantial restoration of natural quiet that currently exists in the GCNP.

Clark County (62) comments that the FAA has provided no adequate basis to demonstrate the reasonableness of the defined "natural quiet" goal. Further, the FAA's "time audible" metric does not reasonably measure natural quiet. Clark County also states that the models used to estimate aircraft audibility have not been adequately explained and may overstate the extent to which aircraft can be heard.

FAA Response:

Since the issuance of the 1996 NPRM, the NPS published a public notice of agency policy (64 FR 3969) titled *Evaluation Methodology for Air Tour Operations Over Grand Canyon National Park*. The policy refined the NPS' noise evaluation (i.e., impact assessment) methodology for air tour operations over GCNP. Specifically, the refinements included a two-zone system for assessing impacts related to substantial restoration of natural quiet at GCNP.

The ongoing noise model validation effort is also part of the FAA and NPS commitment to work cooperatively to meet the mandated goal of substantial restoration of natural quiet in GCNP. The noise modeling used in all of the GCNP environmental documents to date, is the best science currently available. However, as noise modeling is a constantly evolving technology, both agencies are committed to making appropriate

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adjustments to the approaches and methodologies as new knowledge or science becomes available.

With regard to the ambient noise database and the lateral attenuation calculation, the GCNP aircraft noise model validation project will address these facets. All existing evidence, including field measurements, support both the choice of an ambient noise level data file for the Park and the decision to suppress INM's lateral attenuation algorithm for GCNP noise modeling.

3. Native American Tribal Concerns

The Hualapai Tribe (52) states that it supports the use of quiet technology and generally supports the NPRM with the following exceptions: (1) the FAA has failed to consult with the Hualapai Tribe on a government-to-government basis as required by federal law, (2) the multiple rulemakings published by the FAA on the GCNP make the comment process more cumbersome, more expensive and obscures the cumulative impact of the respective parts of the rulemakings, (3) there has been a double standard with respect to testing noise impact since no on-the-ground noise testing and modeling has been undertaken with respect to the Hualapai Reservation, in collaboration with the Tribe, (4) the FAA needs to look at alternatives to quiet technology such as location of air tour routes and caps, (5) there need to be "Tribal Flight Free Zones" to protect cultural resources and practices, natural resources, and tourism industry, as well as limitations on the number of NPS flights over the Hualapai Reservation, (6) the FAA should delegate to, or share with, the Hualapai Tribe oversight authority to make sure that the quiet technology rules are being complied with over the Reservation, and (7) there needs to be

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an exemption from quiet technology requirements for tribal administrative flights, analogous to the NPS exemption, to avoid burdening the Tribe's sovereign authority to run its own government and administer its lands.

FAA Response:

The FAA has been consulting with the Hualapai in accordance with the provisions of the President's April 24, 1994, memorandum on Government-to-Government Consultation with Native American Tribes and Section 106 of the NHPA. The FAA has had numerous meetings with representatives of the tribe's natural resources and cultural resources agencies since 1996. Additionally, the Hualapai have been part of the FAA and the NPS ongoing discussions with the other individual tribes. The Hualapai have also commented on several issues that have been addressed in previous rulemaking and were a cooperating agency on the February 2000 Final Supplemental Environmental Assessment.

In accordance with Section 106 of the NHPA, the FAA issued a Determination of No Adverse Effect to the Traditional Cultural Properties (TCPs) for all of the tribes and/or nations, except the Hualapai Tribe, for the rulemaking actions associated with the SFRA in the vicinity of the GCNP. As to the Hualapai Tribe, the FAA along with the NPS, the Advisory Council on Historic Preservation, the Hualapai THPO, and the Hualapai Department of Cultural Resources signed a Programmatic Agreement on January 24, 2000 related to Section 106 compliance and their TCPs. Concerning the flight-free zones over the Hualapai Reservation, with few exceptions, the general policy

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of the United States is that the skies should be generally open to aviation. The FAA removed the National Canyon route from the routes notice consideration, in July 1998, in response to comments.

In response to the request for an exemption to conduct administrative flights, the FAA reiterates that this and other rulemakings affect only flights satisfying the definition of a commercial air tour operation contained in 14 CFR §93.303. Moreover, this rule does not phase-out aircraft that do not meet the designation as quiet technology. The FAA encourages the Hualapai, and other government agencies that use public aircraft, to use quiet technology.

4. Classification of Aircraft by Noise Characteristics

A number of commenters address the issues related to classification based on aircraft certification, as well as the 3 categories of aircraft classification.

Lake Mead Air (26, 53) believes that the standard for quiet aircraft should not be linked to the Aircraft Noise Certification provisions prescribed in 14 CFR part 36, and listed in AC 36-1F, since it is possible for aircraft to be reconfigured and flown differently than AC 36-1F. The FAA should make sound measuring equipment available at Las Vegas and Grand Canyon for determining actual flyover sound levels in the tour "cruise configuration." If Category A aircraft can be retrofitted to Category B it should be encouraged since such a conversion would be more easily implemented than direct conversion to Category C.

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Clark County Department of Aviation and the Las Vegas Convention and Visitors Authority (Clark County) (62) states that the NPRM will unreasonably and arbitrarily burden air tour operators and the Las Vegas tourist economy. However if the FAA based its categorization of aircraft on noise performance, rather than on certification, and provided options for compliance flexibility, there would be significantly less burden on tour operators, airborne visitors, and the economy of the Las Vegas area. Clark County states that it conducted a study of actual ambient and aircraft noise in GCNP in an attempt to validate FAA's methodology and found that using certification data, as a basis does not accurately represent aircraft noise levels in the GCNP, because it does not account for actual atmospheric and operational conditions in the GCNP. As a result, the FAA has placed aircraft in the noisier A or B Categories that should belong in the B or C Categories. Clark County states that the NPRM provides no means for operators to comply with the performance standards through the use of retrofitted equipment, quiet operating procedures, or other enforceable steps to reduce noise. This is at odds with the Federal government's increasing attempt to use performance standards and provide compliance flexibility to reduce regulatory burden.

An airline transport pilot (40) states that the noise propagation of a propeller driven airplane is largely dependent on the design and speed of its propeller. Design and speed are responsible for a greater share of the decibel level discernible in the hearing range than exhaust output, wing shape, loading of the airplane, cowl and airframe vibration, or accessory operation (e.g., flap extension, gear drag and parasitic friction). Since the design and speed factors affect all aircraft operating in the Grand Canyon a simple change, for example, operating a Cessna

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207 at 2300 RPM instead of 2400 or 2500 RPM, can affect whether an aircraft should be placed in one category or another, if the categories are defined by noise values.

Lake Mead Air (26, 53) states that the decibel range for quiet Category C helicopters starts at 80dB whereas the fixed wing threshold is 69dB. If 80 dB meets Category C standards for helicopters it should also meet Category C standards for fixed wing.

Eagle (54) states that its F27 aircraft would not be covered under the NPRM. Size (48 passenger), noise tests, and decibel adjustments do not take the F27 into consideration.

Professional Helicopter Pilots Association (85) states that the existence of aircraft capable of achieving the lower sound levels is still in the developmental stage such that only one manufacturer has any such helicopters available which have the performance capability for air tour operations. As a result the NPRM is premature and should not be implemented until technology improves.

The Grand Canyon River Guides (GCRG) (50) state that helicopters, which are generally accepted to be the most obnoxious of aircraft and carry fewer people, should not fall into Category B, but should be put into Category A.

Twin Otter (45) states that it is appropriate to take into account both the flyover sound level and aircraft passenger seating capacity in establishing which models qualify as Category C aircraft because a single Vistaliner replaces two flights with the nine passenger Cessna 402/Piper Chieftain, nearly three flights in the seven passenger Cessna 207 and four flights in the 4-5 passenger Bell Jetranger.

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Twin Otter adds that the Beechcraft C-99 and the Piper Chieftain could be retrofitted with four bladed props, as have the Vistaliners, thus converting them to Category C aircraft.

Air Vegas (57) believes that its 15 Beechcraft C-99 aircraft should be deemed Category C since it utilizes the same basic power plant, the PT-6, as the Caravan and the Vistaliner, and has been modified for sightseeing operations to include extra windows. The average price for these aircraft, configured to meet Air Vegas specifications, is in excess of \$1,300,000. These aircraft are adequately available and have proven to be cost effective. Furthermore, the FAA studies, which placed the Beechcraft C-99 into Category B, were based on max RPM level 2200 RPM. If the RPM is reduced to 1900 (a reduction of 14%), there is an equal reduction of 14% in the dB level of the propeller, thus 68.2 dB. Air Vegas operations specifications require pilots to maintain propeller RPM at 1900 and with this power setting a Beechcraft C-99 is well below the Category C cut off of 78 dB for a 15 passenger aircraft. Air Vegas believes there should be an incentive for decreasing the percent of time audible for the aircraft. Because of the higher speeds achievable by the Beechcraft C-99, as compared to the Vistaliner, the C-99s have an impact for less time.

Scenic Airlines (74) states that the deHavilland DHC-6-300 Twin Otter with quiet propellers and the Cessna 208 (A & B models) must be classified as quiet aircraft technology (Category C). Furthermore, in developing Sound Exposure Level (SEL) dB limits, consideration must be given to the speed of an aircraft. Since disruption of natural quiet is measured in terms of "Time of exposure" the faster of two aircraft with the same dB output should be shown as the quieter.

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The Grand Canyon Trust (72) states that by defining the aircraft categories in terms of sound exposure level per passenger seat, the FAA obscures the fact that some Category C aircraft (e.g., the Vistaliner) are noisier than some Category A or B aircraft. The Trust further states that unless a cap is established on the number of operations Category C can fly, ultimately there will be no advantage to conversion to certain Category C aircraft. Therefore, the Trust's additional comments assume that such a cap will be implemented.

Clark County (62) states that the FAA should set default noise levels and GCNP noise categories for the aircraft operating in GCNP using methodologies that accurately reflect conditions in GCNP and should validate the noise levels through field-testing. If this were done, some aircraft, such as the Beechcraft C-99 would actually meet Category C standards.

Eagle (54), King (56), and Vision (61) state that the FAA's formulation of the aircraft categories in the NPRM is arbitrary and capricious for the following reasons:

(1) The FAA fails to justify its placement of the dividing line between categories and has not consulted operators on this issue before establishing the categories.

(2) Use of part 36 test results is not appropriate (see discussion under "Links to aircraft noise certification").

(3) The proposed 4 decibel distinction between Category A and Category C is inappropriate since it attempts to draw distinctions that cannot be discerned by most humans.

(4) Distinctions between categories fail to account for the effect of speed on aircrafts' "noiseprint."

(5) Tests that serve as a certification basis do not simulate actual operating conditions.

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(6) Categories discriminate against propeller driven airplanes.

(7) Proposed Category C could be met by only two types of existing aircraft, one of which is unavailable while the other is prohibitively expensive.

Bell Helicopter Textron (91) states that the FAA's noise analysis incorrectly assumed that there is no lateral attenuation of aircraft sound. The effect of this false assumption is great considering that if the sound exposure levels attributed to aircraft were even 5 dB less, then up to six additional aircraft would be in compliance with the proposed Category C noise efficiency criteria.

FAA Response:

While this SNPRM replaces the three noise efficiency categories proposed in the December 1996 NPRM, the currently proposed quiet technology designation is based upon the same rationale and criteria. The FAA criteria for “reasonably achievable” quiet technology requirements include what is technologically practicable, economically reasonable, appropriate to the aircraft type design, and, in the final analysis, environmentally beneficial. The FAA also set forth that as desired attributes for the quiet technology designation, the designation should:

- Be based on aircraft noise certification (14 CFR part 36)
- Judge fixed- and rotary-wing aircraft on a common basis
- Correlate with aircraft performance and operation at GCNP
- Offer basis for incentives
- Be manageable

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Noise levels obtained from aircraft noise certification represent the highest quality of data available. The flight tests are conducted under controlled conditions with an FAA representative or designee in attendance to witness the test setup and test activities. Data obtained during these flight tests are corrected to standard reference conditions as prescribed in 14 CFR part 36. The certification tests are designed to acquire noise levels representing the noisiest flight configurations for small propeller-driven airplanes and helicopters. FAA believes that this is appropriate for the GCNP situation as the certification flight configurations are also the noisiest configurations that could be used over the park. Thus, the sightseeing aircraft can be judged equally, fairly, and without the concern that the noise levels are undervalued.

The airport community has many years of experience using the certificated noise levels. FAA publishes these levels in Advisory Circular (AC) 36-1, "Noise Levels for U.S. Certificated and Foreign Aircraft." The current version of this AC is 36-1G, dated August 27, 1997. These data have been used to establish use restrictions, curfews, and noise budgets at some airports in the country. The certificated noise levels are not only available in the advisory circulars, which are updated and published periodically, but the levels are readily available to the aircraft owners from aircraft flight manuals (AFM).

The quiet technology designation based on certificated noise levels is proposed not only because of the long-standing precedent, but also because it eliminates the need for someone to make such measurements in the field. Years of experience with using data obtained from airport noise monitoring systems have shown that noise levels

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obtained under uncontrolled conditions are highly variable. This problem can only be overcome by obtaining very large samples of measured data to reduce the statistical uncertainty. Thus, FAA believes that a quiet technology designation based on measured data taken at GCNP would be economically unreasonable and susceptible to statistical error.

Unfortunately there is no single method applicable to all aircraft for determining the certificated noise level. Depending on date of application for type certificate and whether the aircraft is a helicopter or small propeller-driven airplane, the noise level could have been obtained from one of 4 different tests. With measurements taken for different flight operations, at 3 different altitudes, and in 3 different units of noise, it is not possible to directly compare certificated noise levels obtained for helicopters with those of small propeller-driven airplanes. As reported in the study, "Methodology to Categorize the Noise Efficiency of Air Tour Aircraft in GCNP," FAA developed a procedure for: (1) extrapolating from the controlled conditions of a certification test to the operating conditions at GCNP and (2) converting levels to a common noise unit, thus making it possible to judge fixed- and rotary-wing aircraft on a common basis under conditions that pertain to air tour operations over GCNP. As a result of the study, FAA found that it is possible to extrapolate from the certification conditions applicable to helicopters and small propeller-driven airplanes to produce a consistent set of noise levels under conditions similar to those at GCNP.

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FAA finds that the noise efficiency concept, which was proposed in the December 1996 NPRM and re-proposed in this SNPRM, albeit modified to designate quiet technology, exhibits all of the desired attributes for the quiet technology designation. The concept is technically sound as it takes into account aircraft design, flight configuration, acoustic characteristics, productivity, and economic reasonableness. As the concept is based upon the certificated noise levels, the FAA is able to judge the noise of the commercial sightseeing aircraft consistently, fairly, and without the additional cost and technical problems found in field monitoring. In concert with related actions with respect to the airspace and air tour operations, the quiet technology designation can be an effective means toward substantially restoring natural quiet at GCNP.

5. Phase-Out of Less Noise Efficient Aircraft

A number of commenters addressed the proposal to phase-out noisier aircraft to further reduce noise impacts in GCNP. As described in the 1996 NPRM, less noise efficient aircraft would have been gradually phased-out starting in the year 2000 with the phase-out of Category A aircraft and continuing through to the end of 2008 at which point all Category B aircraft would be phased-out and only Category C aircraft would remain. The phase-out would have limited future use of less noise efficient aircraft in GCNP and would also have provided an incentive for the use of the most noise efficient aircraft.

Air Vegas (57) believes that from a business perspective there is no reason for an interim conversion from Category A to Category B aircraft. Air Vegas supports the alternative

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proposal that the upgrade to Category C should be the only choice for either new entrants or existing operators.

Air Vegas supports the use of incentives to encourage operators to invest in the best available aircraft to reduce aircraft noise intrusion and the number of flights in GCNP. For the incentives to be of benefit they must be available to any operator who wishes to invest in the available technology. The only two aircraft identified as quiet are the Vistaliner and the Cessna Caravan. By exclusive leasing contract the Vistaliners are not available to any operators in the southwest area other than Scenic and Grand Canyon Airlines. The Cessna Caravan, a 9 seat aircraft, is not economically practicable since it costs in excess of \$1,000,000 when other 9 passenger aircraft sell for less than \$100,000.

Lake Mead Air (26, 53) states that the availability of used single engine Category C aircraft is rare. The only other aircraft listed as fixed wing is the Raisback Conversion deHavilland Twin Otter, and the supply is limited and the fleet is aged.

Lake Mead Air says that conversion from Category A to Category B is less burdensome than direct conversion to Category C. It is possible that simply changing propellers will convert Category A to Category B. Conversion of three Cessna 207 aircraft (\$180,000 for 18-21 seats - i.e., \$10,000/seat) to two Cessna 208 Caravans (\$2.4 million for 18 seats - i.e., \$133,000/seat), for a net reduction of 5 dB, is not sensible or cost effective. Lake Mead Air (26, 53) believes that there will be no noise-reduction effect of conversion to quiet aircraft.

Lake Mead Air adds that for operators to pay the debt service on "quieter aircraft" they may be forced to make more flights per day. Lake Mead points out that the Cessna T207,

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which seats 8 passengers, generates the same decibels as the Vistaliner, which seats 19. The Vistaliner is deemed a noise efficient aircraft according to the NPRM based on the noise per seat accounting. However, to pay for the Vistaliners the operators must make up to 5 or 6 round trip flights per day.

Papillon (55) states that conversion from Category A to Category B is less burdensome since at the present time there is limited availability of Category C aircraft. With regard to helicopters the cost is higher by approximately 20-30% for new Category C aircraft as compared with purchasing Category B aircraft. With used Category B helicopters available the cost to convert to a new Category C aircraft is approximately 125% higher compared to purchasing a used Category B. This commenter says that there are presently no used Category C aircraft available for the helicopter industry.

Papillon states that in some cases it would be sound business practice to go directly from Category A to Category C to spread the acquisition costs over more years. The direct conversion from Category A to Category C would accelerate the transition to greater quiet, since the Category A aircraft have the loudest sound signature, however it would prove to be a significant economic hardship on some operators and an impossibility for others.

Papillon states that, once operators do acquire Category C aircraft, no cap should apply, and they should be permitted to increase the number of Category C aircraft in their fleet until such time as further expansion would endanger aviation safety. However, quiet technology would not stop here since through further advancement in technology there is the prospect of Category D and beyond.

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Eagle (54), King (56), and Vision (61) state that the NPRM unnecessarily discourages the transfer of aircraft between operators or other business combinations among air tour operators.

Eagle states that the existence of new part 119 may make it most efficient for an operator to split its operations between companies based on aircraft size (e.g., > 9 passengers).

GAMA (64) objects to the proposal because it will force the near term phase-out of 75% or more of the airplanes currently operating in the vicinity of GCNP. GAMA cites a NASA statement that a quantum leap in technology is required to produce any measurable future noise reduction and states that FAA is aware that it will be years before the necessary research and development is completed and industry can begin to apply new noise reduction technologies that will make measurable improvement over today's technology.

Scenic Airlines (74) agrees with the FAA recommendation that new entrant operators be required to use Category C aircraft. However, current operators of Category A aircraft should not be forced to convert directly to Category C aircraft. They should be allowed to convert from Category A to Category B to Category C. Furthermore, operators should only be permitted to convert from Category A to Category B aircraft if the aircraft can be used for a minimum of five years, otherwise the transition should be directly to Category C.

GCRG (50) states that it would hasten the reduction of noise in the GCNP if operators were required to convert from Category A directly to Category C. New entrants should not be allowed to start operations even with Category C aircraft. They should be required to buy existing operations only. Furthermore, the GCRG state that the temporary cap on growth of the

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air tour industry should not be removed for Category C aircraft, as this would negate the intended gains made by the conversion to quieter aircraft. Category C aircraft are not quiet. Any changes in the cap should be stayed until the comprehensive noise management plan is completed.

The Grand Canyon Trust (72) states that if the FAA decides to allow Category B replacements, the FAA must, at a minimum, "retain its proposal to phase-out an increment of 25 percent of Category B aircraft every two years from 2002 to 2008...."

The National Parks Conservation Association (NPCA) (65) believes strongly that tour operators should be required to convert Category A aircraft directly to Category C aircraft, rather than allowing the interim substitution of Category B aircraft, because the FAA must do whatever is necessary and safe to restore natural quiet.

However, NPCA believes that the conversion to Category C aircraft may constitute little or no progress toward reducing noise in the Grand Canyon because, contrary to the premise of the NPRM, some Category C aircraft, such as the Vistaliner, are in fact no more quiet than many Category A or B aircraft. NPCA states that the FAA obscures this point by defining the categories in terms of sound exposure per passenger seat. To the ground visitor whose visit is disrupted by overflight noise, the number of passengers a plane is carrying is irrelevant; it is the absolute amount of noise generated by each flight and the number of flights that matters.

The Sierra Club, Grand Canyon Chapter (76), recommends that the transition to quieter aircraft should be accomplished in five years.

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FAA Response:

This SNPRM only proposes to define quiet aircraft technology designation.

The quiet technology designation is predicated on the notion that the use of larger, relatively quieter aircraft (on a per seat basis) is helpful in reaching the goal of substantial restoration of natural quiet through a combination of reduction of noise at the source and reduction in number of tour operations necessary to meet demand. Under the provisions of Section 804 of the Air Tour Act, all incentives to replace current aircraft with those satisfying the definition must be recommended by the NPOAG. Thus, all proposals to encourage the transition to quiet technology will be addressed in subsequent FAA rulemaking in consultation with the NPS and the NPOAG.

6. Removal of Temporary Cap

A number of commenters addressed the proposal to remove the cap on air tour aircraft for all Category C aircraft. This change was proposed as an incentive for conversion to noise efficient aircraft.

NPCA (65) believes that the cap on the number of tour aircraft should not be lifted and that operators should be allowed only a one-to-one replacement of Category A with Category C aircraft. Further, to be effective in restoring natural quiet, the cap must be imposed on tour flights, rather than on the number of tour aircraft; otherwise, operators will conduct more flights and extend the tour season, thereby destroying the natural quiet throughout the year. Finally, to restore natural quiet to the 1987 level, the number of operations should be reduced. By using

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Category C aircraft that carry more passengers, it would be possible to reduce the number of operations, while still increasing the number of passengers.

The Havasupai Tribe (71) opposes the proposal to lift the cap on Category C aircraft. Lifting the cap would only permit more aircraft to fly over the Reservation. According to the Tribe, "the largest operators at the Grand Canyon have either converted to quiet technology or are in the process of converting" and thus lifting the cap in the future would not create an incentive since the conversion has already begun or taken place. The air tours over the GCNP have nearly doubled in the ten years ending in 1996 and without the temporary cap on all aircraft it will only continue to grow. Not only will the noise impact, but also the visual impact, on the reservation will be greater without the cap. The Tribe agrees with the statement in the DEA that "the visual impact of air traffic on the scenic vistas of GCNP and over cultural areas, including sacred sites and historic sites, in the GCNP and surrounding lands is of concern."

Grand Canyon Trust (72) states that the cap on the number of aircraft should not be lifted. At most, operators should be allowed a one-to-one replacement of Category A with Category C aircraft. Since Category C aircraft are not necessarily quieter than the aircraft they are replacing (noise efficiency is a function of per seat and not per aircraft) operators should not be allowed a greater number of Category C aircraft than the number of "noisier aircraft" they are replacing. Furthermore, any caps must be applied to the number of flights and not the number of aircraft.

The Sierra Club, Angeles Chapter (38, 75) opposes the proposal to lift the caps on Category C aircraft. The Sierra Club believes that at a minimum the cap on fleet size should

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remain in effect until the completion of the comprehensive noise management plan, however, it would be more appropriate to apply the cap to the number of flights, rather than the number of aircraft. Along with the proposed caps the Sierra Club supports the curfews and recommends that additional curfews be proposed to create flight-free season(s) or period(s).

The Sierra Club, Grand Canyon Chapter (76), recommends a permanent cap on the number of all air tour flights. There is no reason to allow one interest--the air tour industry--continued growth while all other activities have reasonable limits. Initially the number of operations should be capped at the 1996 level. By 2008 the number of operations should be reduced to the level of 1987, and by 2018 they should be reduced to the number of operations prevailing in 1975.

Scenic Airlines (74) agrees with the proposal to remove the cap on Category C aircraft. The comprehensive noise management plan should address any future restrictions on number of aircraft.

FAA Response:

Since the 1996 NPRM, the FAA has issued a final rule that replaced the cap on the number of air tour aircraft with an operations limitation on the annual number of commercial air tour operations in the GCNP SFRA (65 FR 17708). As documented in the February 2000 Final SEA accompanying the commercial air tour limitation final rule, only 44% of the Park (on an annual average day) achieves substantial restoration of natural quiet upon implementation of the air tour limitations and changes to routes and airspace adopted in April 2000. The FAA has evaluated whether the designation of

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quiet technology requirements, contained in this SNPRM, will enable the FAA to relieve commercial air tour operators from the present commercial air tour operations limitation. More specifically, the FAA conducted studies to determine the extent to which use of quiet technology aircraft could possibly enable air tour operators to increase operations without increasing cumulative noise levels at GCNP pursuant to section 804 of the Air Tour Act.

The FAA test was conducted by assessing the sensitivity of the 25% TA_{12hr} ⁵ contour to increases in quiet technology aircraft operations using the GCINM. The 25% TA_{12hr} contour has been the measure used in the environmental assessments associated with all GCNP SFRA rulemaking to assess progress towards the goal of substantial restoration of natural quiet. The particular GCNP air tour scenario chosen for this test was the preferred alternative of the February 2000 Final SEA that accompanied the April 2000 final rules (65 FR 17708 and 65 FR 17736). Two separate runs of the GCINM were performed; fixed wing aircraft operations on Zuni Reverse and helicopter operations on the Green 1 loop. The analysis found that adding

⁵ The time above (TA) metric provides the duration that aircraft related noise exceed specified sound threshold. For assessment of aircraft noise in GCNP, the % TA_{12h} represents the percentage of time aircraft are audible during the 12-hour daytime period of primary visitor activity. The 25 % TA_{12h} contour (the area where aircraft are audible greater 25% of the time) measures the extent that the criterion for substantial restoration of natural quiet is met. When the 25 % TA_{12h} contour for a particular alternative occupies less

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less than 4 annual fixed wing operations or 3 annual helicopter operations would increase the 25% TA_{12hr} contour area by 0.01 sq. mi. FAA chose a hundredth of a square mile as the threshold of significance because contour areas in the GCNP EA documents have been reported to that significant digit.

The above result supports the FAA's preliminary finding that aircraft that meet the quiet technology designation operating without operations limitation will likely cumulatively increase noise in the GCNP. Given that a condition of relief from the operations limitation is that the cumulative impact of such operations does not increase noise at GCNP, the FAA would likely be unable to relieve these operators from the commercial air tour operations limitation. Removal of the operations limitation will be addressed in subsequent FAA rulemaking in consultation with the NPS and the NPOAG as directed by the Air Tour Act.

7. Other or Alternative Incentives

A number of commenters responded to the FAA's request for comments regarding alternative or additional incentives for operators to convert to noise efficient technology.

Lake Mead Air (26, 53) states that with the conversion to "quieter aircraft" several companies will not be able to meet the standard and will sell or close. Other incentives for quiet aircraft technology should be considered such as tax credits or subsidies, for example the FAA

than half of the area of GCNP then that alternative has achieved substantial restoration of natural quiet at

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could pay the air tour operators not to fly Category A aircraft, similar to soil banks.

Furthermore, more noise efficient aircraft should be phased-in rather than phasing-out the less noise efficient aircraft.

Twin Otter (45) states that it is an oversight that the FAA has not provided for a quiet aircraft corridor in the eastern section of the canyon. Twin Otter then comments on routes proposed in 1996 that are no longer part of this rulemaking.

Twin Otter recommends the following additional incentives for Category C aircraft: (1) lift the aircraft cap immediately on the number of Category C aircraft that may be operated, (2) eliminate the curfew for Category C aircraft, and if this is not possible, then permit Category C aircraft to operate one hour before and one hour later than curfew hours for conventional aircraft (official sunrise at GCNP is two hours earlier than the curfew permits for most of the summer), (3) roll back the overflights fee for Category C aircraft as an additional incentive, and (4) require helicopters to fly at the highest possible altitude in the Zuni Corridor so that fixed wing aircraft can conduct tours at a lower altitude and establish the lowest fixed wing tours in the Zuni for Category C qualifying aircraft.

Grand Canyon Airlines (GCA) (46) supports the concept of the proposed amendment to part 93. GCA also believes that the FAA needs to provide quiet aircraft incentive routes in the eastern region. Category B helicopters are permitted to operate at the lowest possible altitude in the eastern region and they are even encouraged to fly in the most sensitive Dragon

the Park.

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Corridor with the lowest altitudes and shortest direct routes. This makes the fixed wing Category C air tours less attractive than the noisier Category B helicopters in this region. To correct this disparity the Category C aircraft should be given the lowest possible routes in the eastern region. GCA makes the following recommendations: (1) provide a Category C incentive route over the existing Black 1 route, (2) minimize advantages to Category B helicopter routes by creating new Category C routes that provide superior tour features, (3) waive overflight fees to Category C aircraft, and (4) eliminate caps and curfews on Category C aircraft.

Papillon (55) also supports the time frame for transition to quiet technology and the guidelines for qualifying aircraft as quiet technology, but recommends 35 dB as the threshold of substantial natural quiet for the GCNP. Further incentives for quiet technology should be implemented for Category C aircraft only: (1) eliminate the GCNP overflight fee, (2) create route across the North Rim (through the Bright Angel Flight-free Zone), (3) permit Category C aircraft to use alternate routes that may enter flight-free zones to show specific landmarks, (4) establish new curfews of one hour after sunrise and one hour before sunset, and (5) restore the two-way helicopter loop in the Zuni Corridor.

An individual commenter (68) states that more incentives need to be utilized to help air tour operators convert to quiet technology. This commenter suggests the following incentives: (1) waiving overflight fees and park admission fees for passengers, (2) offering and approving low-cost government loans and tax credits, and (3) establishing new quality view corridors through which only Category C aircraft could fly at lower altitudes.

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Scenic Airlines (74) states that while 75% of the passengers it flew in 1996 were flown in Category C aircraft about one half of its air tour fleet are Category A aircraft. While Scenic would like to convert these Category A to Category C it must be provided with incentives, in the form of privileges that operators and passengers can value, before it would voluntarily do so. Operators have only invested in Category C aircraft in the past based on the promise by the NPS that they will be rewarded in the future. If no such rewards materialize there will be a disincentive to convert to Category Cs in the future.

Scenic states that the following Category C incentives should be provided: (1) a route through the northern portion of the expanded Bright Angel Flight-free Zone using the existing Black 1A and Green 1A (SFAR 50-2), (2) a route along the current Brown 3 (SFAR 50-2) departure which goes through the north-west corner of the Toroweap Flight-free Zone, (3) waiver of curfews in Dragon and Zuni corridors to extend the hours of operation to Daylight hours, (4) waiver of overflight fees, (5) investment tax credits, and (6) low cost government loans.

AirStar Helicopters, Inc. (84) states that the following incentives for transition to noise efficient aircraft should be considered: low cost loans, overflight fee rebates or investment tax credits. AirStar also states that it has already begun the transition to quiet technology.

The Grand Canyon Trust (72) proposes the use of Dragon and Zuni Corridors as quiet aircraft incentives routes for Category C aircraft only.

FAA Response:

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This SNPRM only proposes to define quiet aircraft technology designation.

Under the provisions of Section 804 of the Air Tour Act, all incentives to replace current aircraft with those satisfying the definition must be recommended by the NPOAG. Thus, all proposals to encourage the transition to quiet technology will be addressed in subsequent FAA rulemaking in consultation with the NPS and the NPOAG. Under the conditions established in Section 804, the NPOAG will provide advice and recommendations on, among other things, the establishments of routes and corridors for the operation of quiet technology aircraft for tours originating in Clark County, Nevada and for “local loop” tours originating at the GCNP Airport in Tusayan, Arizona.

8. Draft Environmental Assessment (DEA)

Some commenters addressed their concerns regarding the draft environmental assessment that accompanied the December 1996 NPRM. For example, several commenters raise concern over compliance with NEPA and the NHPA. The Hualapai Tribe (35) states that the DOT must assess socio-cultural impacts of the regulation under NEPA and potential impacts to integrity of cultural resources under NHPA.

Region IX of the U.S. Environmental Protection Agency (EPA) (70) encourages the FAA and NPS to undertake all reasonable efforts to ensure that environmental concerns expressed by the Native American tribes potentially affected by the proposed action are fully reflected in the Final Environmental Assessment (FEA). The EPA also criticizes the FAA for

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considering only two alternatives in the DEA -- no action and the proposed action. The EPA believes that, in terms of substantially restoring natural quiet of GCNP, an earlier phase-out date for Category A and B aircraft would be a more environmentally preferable alternative that the FAA should consider in the FEA.

The Havasupai Tribe (71) states that the conclusions of the DEA are either disingenuously misleading or false. While the Reservation is within the SFRA, the Reservation is deleted from the analysis area depicted in the DEA. Therefore the conclusion about "substantial improvement" and "continued improvement" in natural quiet do not apply to the Reservation or to the entire SFRA.

The Havasupai Tribe states that the DEA is inadequate and grossly deficient under NEPA and should be rewritten and distributed again for public comment. Furthermore, with respect to the proposal to lift the temporary cap on Category C aircraft the DEA does not discuss whether more noise would be created by one overflight of a Category A aircraft, as compared with 3, 5, or 10 overflights of Category C aircraft. According to the Tribe, an impact statement must "set forth sufficient information for the general public to make an informed evaluation, . . . and for the decision-maker to 'consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action.'"⁶

⁶ Sierra Club v. Army Corps of Engineers, 701 F.2d 1011, 1029 (2d Cir. 1983).

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Clark County (62) comments that the DEA narrowly construes the purpose and need of this rulemaking to include only the reduction of aircraft noise and improperly ignores the important Congressional goals of ensuring the value of air tours and the safety of aircraft in GCNP. Also, despite correctly identifying its duty to rigorously review alternatives, the FAA failed to comply by limiting its review to only two alternatives. The FAA should also have considered alterations in the flight-free zones or tour routes, the use of retrofit equipment to meet the quiet aircraft standards, the use of limitations on aircraft operating parameters to reduce noise, the use of lower altitudes, or other steps to minimize non-natural noise in GCNP.

The American Helicopter Society (AHS) Acoustics Technical Committee (48) comments that current FAA modeling has demonstrated that the No Action Alternative has effectively achieved the goal of restoration of the natural quiet because the results show a deficiency of less than 1 percent, a statistically insignificant amount. Further, the goal would be reached by the year 2000 with the elimination of all Category A aircraft alone, so phase-outs of Category B aircraft are not needed. AHS suggests alternatives that the FAA should consider, such as careful scheduling of air tour flights to achieve overlapping audibility or allowing helicopters to fly below the rim and take advantage of the acoustic shielding provided by canyon features.

The Grand Canyon Air Tour Council (Council) (77) states that it is difficult to comment on the DEA for the following reasons:

(1) The FAA has not yet determined whether a finding of no significant impact will be issued or an environmental impact statement will be required.

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(2) The comprehensive noise management plan is yet to be developed.

(3) Meanings of "natural quiet" and "substantial restoration of the natural quiet" have not been resolved.

(4) Full consultation with tribal governments cannot have occurred since at least one tribe has initiated legal proceedings.

FAA Response:

In accordance with FAA Order 1050.1D, the FAA has determined that this proposed rulemaking is categorically excluded from environmental review under section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA). The proposed rule is categorically excluded under FAA Order 1050.1D, Appendix 4, Paragraph 4.j, which covers regulations “excluding those which if implemented may cause a significant impact on the human environment.” Unlike the DEA completed with the 1996 NPRM, this proposed rulemaking simply establishes quiet technology designations for air tour aircraft operating in GCNP. It does not impose a phaseout or any alteration of any air tour operator’s fleet of aircraft. In addition, the proposed rulemaking does not lift the operations limitation, alter any flight corridors through the Park, or make any change to the SFRA. Finally, the FAA notes that this proposed rulemaking alone has no impact on substantial restoration of natural quiet at GCNP and environmental and economic impacts will depend upon other future incentives yet to be defined. Accordingly, this proposed rulemaking will not individually or cumulatively have a significant effect on the human environment.

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ECONOMIC SUMMARY

Proposed changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. section 2531-2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. And fourth, the Unfunded Mandates Reform Act of 1995 requires agencies to prepare a written assessment of the costs, benefits and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local or tribal governments, in the aggregate, or by the private sector, of \$100 million or more, in any one year (adjusted for inflation.)

However, for regulations with an expected minimal impact the above-specified analyses are not required. The Department of Transportation Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If it is determined that the expected impact is so minimal that the proposal does not warrant a full Evaluation, a statement to that effect and the basis for it is included in proposed regulation. Since this SNPRM serves only to refine the quiet technology definition applied to air tour aircraft operating in GCNP

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developed in the 1996 NPRM and removes all compliance requirements proposed in that NPRM, the expected outcome is to have a minimal impact.

The SNPRM retains the “noise efficiency” concept defined by the relationship between the certificated noise level of an aircraft and the number of passenger seats on the typical configuration of that aircraft type as initially proposed in the 1996 NPRM. However, the three principal rulemaking elements of 61 FR 69334 have been eliminated. The SNPRM replaces the three noise efficiency categories that were proposed in the December 1996 NPRM and proposes to temporarily continue to rely on the designation of quiet technology aircraft, those that were formerly described as Category C. Furthermore, the SNPRM does not propose any phase-out of air tour aircraft that do not comply with the Category C quiet technology designation. Nor does it include any incentive flight corridors through the park as proposed in December 1996. Finally, as noted above, the SNPRM does not lift the operations limitation on commercial air tour operations conducted in the Park that has replaced the 1996 aircraft cap for those aircraft meeting the Category C noise efficiency standard.

Therefore, this SNPRM is essentially a definition of quiet technology and has negligible economic impact on the operators of GCNP air tours. The FAA seeks public comment before moving to future FAA rulemaking in consultation with the NPS. Future rulemaking would be coordinated with an advisory group composed of representatives of general aviation, commercial air tour operations, environmental concerns, and Native American interests.

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Regulatory Flexibility determination

The Regulatory Flexibility Act of 1980 (RFA) establishes “as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation.” To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the determination is that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

This action merely defines quiet technology but does not impose any requirements. Therefore, the FAA does not expect this rule to impose any cost on small entities. Consequently, the FAA certifies that the rule will not have a significant economic impact on a substantial number of small air tour operators.

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International Trade Impact Analysis

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and where appropriate, that they be the basis for U.S. standards.

In accordance with the above statute, the FAA has assessed the potential effect of this final rule to be minimal and therefore has determined that this rule will not result in an impact on international trade by companies doing business in or with the United States.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (the Act), enacted as Pub. L. 104-4 on March 22, 1995, is intended, among other things, to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments. Title II of the Act requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in a \$100 million or more expenditure (adjusted annually for inflation) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a “significant regulatory action.”

This final rule does not contain such a mandate. Therefore, the requirements of Title II of the Unfunded Mandates Reform Act of 1995 do not apply.

Federalism Implications

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The regulations herein would not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12866, it is determined that this rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1995 (Pub. L. 104-13), there are no requirements for information collection associated with the SNPRM.

List of Subjects in 14 CFR Part 93

Air traffic control, Airports, Navigation (Air), Reporting and record keeping requirements.

The Amendment

For reasons set forth above, the Federal Aviation Administration amends part 93, in chapter I of Title 14, Code of Federal Regulations, as follows:

PART 93--SPECIAL AIR TRAFFIC RULES AND AIRPORT TRAFFIC PATTERNS

1. The authority citation for part 93 continues to read as follows:

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Authority: 49 U.S.C. 106(g), 40103, 40106, 40109, 40113, 44502, 44514, 44701, 44719, 46301.

2. Section 93.303 is revised to add the definition to read as follows:

§ 93.303 Definitions.

* * *

(d) *Quiet technology aircraft* means an aircraft that is subject to §93.301 and has been shown to comply with the noise limit specified in appendix A of this part.

* * *

3. Appendix A is added to read as follows:

Appendix A - GCNP Aircraft Quiet Technology Designation

This appendix contains procedures for determining the quiet technology status for each aircraft subject to §93.301 determined during the noise certification process as prescribed under part 36 of this chapter. Where no certificated noise level is available, the Administrator may approve an alternative measurement procedure.

1. Aircraft Noise Limit for Quiet Technology

A. For helicopters with a flyover noise level obtained in accordance with the measurement procedures prescribed in Appendix H of 14 CFR part 36, the limit is 80 dB for

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helicopters having 2 or fewer passenger seats, increasing at 3 decibels per doubling of the number of passenger seats for helicopters having 3 or more passenger seats. The limit at number of passenger seats of 3 or more can be calculated by the formula:

$$EPNL(H) = 80 + 10\log(\# \text{ PAX seats}/2) \text{ dB}$$

B. For helicopters with a flyover noise level obtained in accordance with the measurement procedures prescribed in Appendix J of 14 CFR part 36, the limit is 77 dB for helicopters having 2 or fewer passenger seats, increasing at 3 decibels per doubling of the number of passenger seats for helicopters having 3 or more passenger seats. The limit at number of passenger seats of 3 or more can be calculated by the formula:

$$SEL(J) = 77 + 10\log(\# \text{ PAX seats}/2) \text{ dB}$$

C. For propeller-driven airplanes with a measured flyover noise level obtained in accordance with the measurement procedures prescribed in Appendix F of 14 CFR part 36 without the performance correction defined in Sec. F35.201(c), the limit is 69 dB for airplanes having 2 or fewer passenger seats, increasing at 3 decibels per doubling of the number of passenger seats for airplanes having 3 or more passenger seats. The limit at number of passenger seats of 3 or more can be calculated by the formula:

$$LA_{\max}(F) = 69 + 10\log(\# \text{ PAX seats}/2) \text{ dB}$$

D. In the event that a flyover noise level is not available in accordance with Appendix F of 14 CFR part 36, the noise limit for propeller-driven airplanes with a takeoff noise level obtained in accordance with the measurement procedures prescribed in Appendix G is 74 dB for airplanes having 2 or fewer passenger seats, increasing at 3 decibels per doubling of the

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number of passenger seats for airplanes having 3 or more passenger seats. The limit at number of passenger seats of 3 or more can be calculated by the formula:

$$LA_{max}(G) = 74 + 10\log(\# \text{ PAX seats}/2) \text{ dB}$$

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